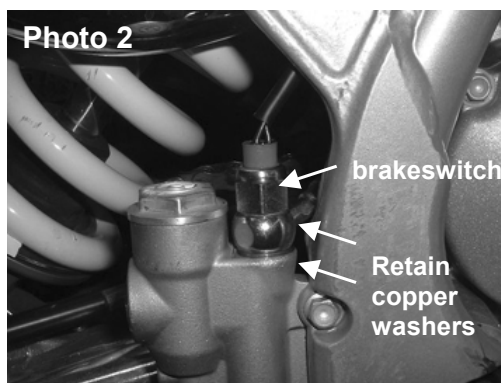
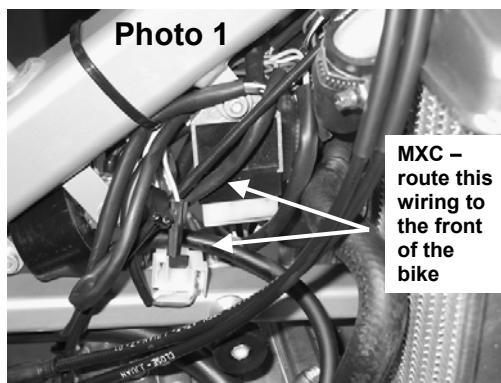


## '04-'05 KTM 450/525 EXC & MXC DUAL SPORT KIT INSTALLATION MANUAL



1. Get a degree in Mechanical and Electrical Engineering. (kidding)
2. Remove the seat and fuel tank. Unplug and remove the kill button and its wiring.
3. **EXC** – Unplug and remove the headlight. **MXC** – Remove the front number plate.
4. **EXC** - Unplug the stock taillight from the bike's wiring harness (plastic connector at the front of the airbox) and remove the rear fender/side panel plastic from the bike. Unbolt and remove the stock taillight from the rear fender. **MXC** – Remove the rear fender/side panel plastic from the bike.
5. **MXC Only** – Locate the stock lighting wiring harness zip-tied under the frame back bone (see Photo 1.) Remove the securing zip-ties and route this wiring forward to the area behind the headlight. Route along the right side of the frame using the factory wire guide clamp.
6. **Brakelight Switch Installation:** The KTM kit uses a hydraulic brakelight switch. This requires replacing the rear master cylinder banjo bolt with a specially made switch. Installing the switch requires bleeding the brake. **If you do not feel competent bleeding your rear brake, please refer this job to a qualified mechanic, as**



**failure to do it correctly will make the brake inoperable.**

Remove the stock banjo bolt and replace with the hydraulic switch as shown. **Make sure to install the copper crush washer from the stock bolt under the switch (Photo 2).** Torque to 25 lbs.

**Bleeding the Brake: (do not begin this process unless you have a fresh can of brake fluid.)** Remove the lid from the rear brake reservoir (left side under carburetor.) Put the box end of a 11mm wrench over the caliper bleed nipple and install the supplied bleed hose tightly over the nipple. Position the loop on the hose above the nipple as shown in Photo 3 with the other end of the hose in a



**Photo 3**

container to catch the fluid. Crack the bleed nipple open about 1/8 to a quarter turn keeping the loop in the hose vertical. Slowly depress the brake pedal to fill the hose with fluid. Pump slowly until you have brake fluid extending up into the loop, then you can pump the pedal fairly aggressively to drive air out of the system. The fluid above the bleed nipple will prevent air from re-entering the system. **Do not let the reservoir go dry – add fluid as needed.** Pump the pedal until there is no more bubbles then close the nipple with the wrench. Double check the pedal is firm and the brake works properly.

7. **Taillight Prep (EXC & MXC):**

Remove the taillight lens to expose the bulb socket. Pull the socket out of the way and drill a 13/32" hole in the taillight plastic as shown in Photo 4. This hole is to allow the rear turn signal and license plate illuminator light wires to pass through the taillight plastic.

8. **License Plate Illuminator Light Installation:**

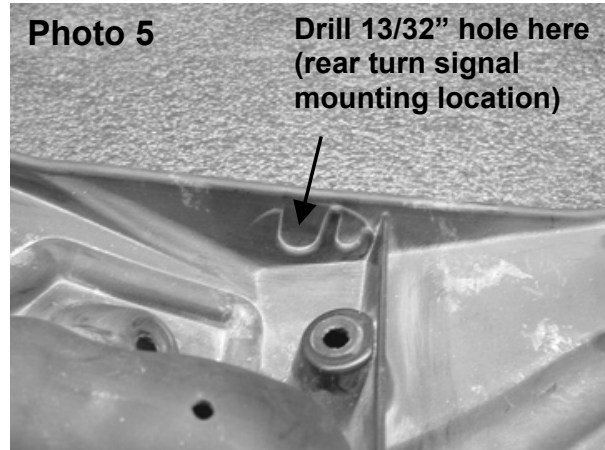
Locate the license plate illuminator light in the kit parts bag. It's a small silver bolt with two white wires coming out. Drill a 5/16" hole in the taillight plastic and mount it in the location shown in Photo 4. It should sit directly on top of the molded ridge in the plastic.



**Photo 4**

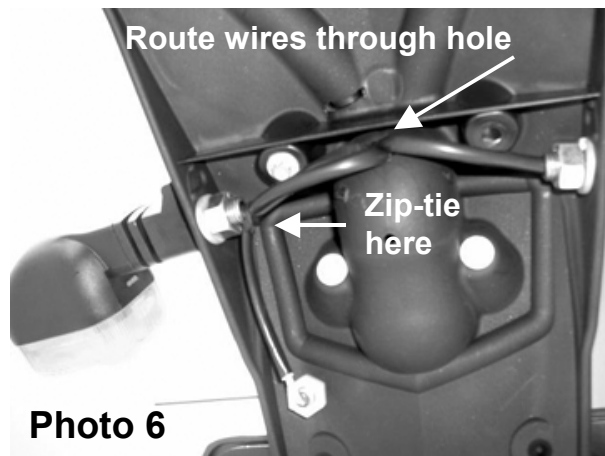
### 9. Rear Turn Signal

**Installation:** Looking at the inside edge of the taillight, locate the slightly raised “guides” on each side (see Photo 5). These are where the rear turn signals will mount on the taillight. Mark the center of these guides with an awl and drill a 13/32” hole through the center of each one. Mount two of the turn signals to these locations.



### 10. Rear Turn Signal and License Plate Illuminator

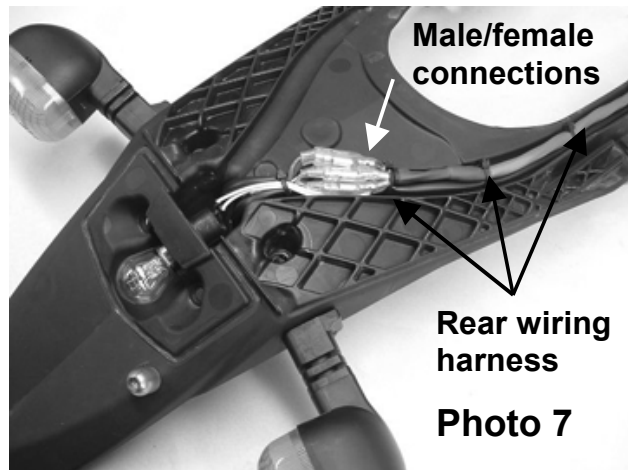
**Wire Routing:** Route the rear turn signal and license plate illuminator light wires through the hole in the taillight you drilled in step 7. (See Photo 6) Use a zip-tie to secure the license plate illuminator wires in place.



### 11. Rear Wiring Harness

**Installation:** Locate the longer of the two gray cables that came in the dual-sport kit. It will have a plastic plug on one end and several female terminals on the other. Position the harness so the female terminals can connect with the males from the turn signals and illuminator light. Once it is positioned make the following connections:

- Attach one of the two white wires from the license plate illuminator (doesn't matter which) to the black female terminal from the gray cable.
- Attach the remaining white wire from the license plate illuminator to the red wire from the gray cable.
- Attach one of the two wires (doesn't matter which) from the right turn signal to the green wire from the gray cable.

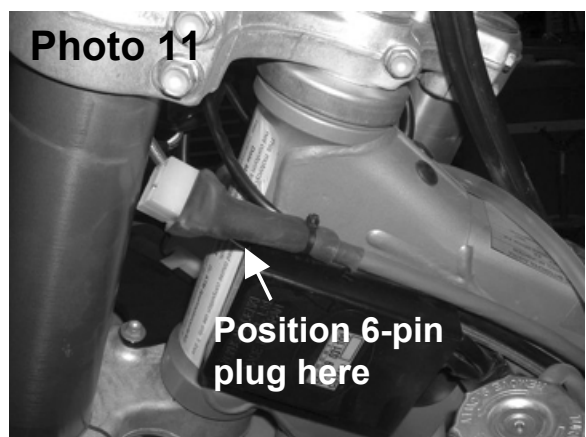
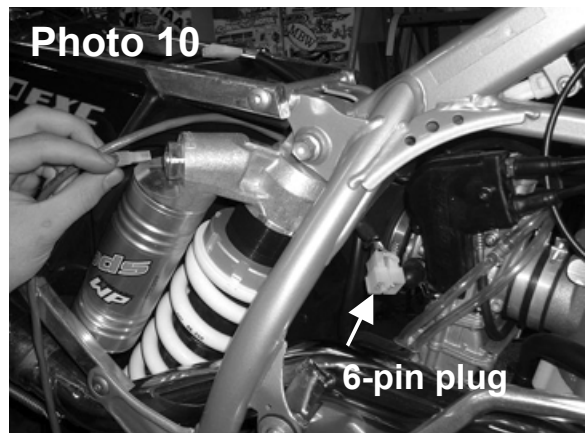
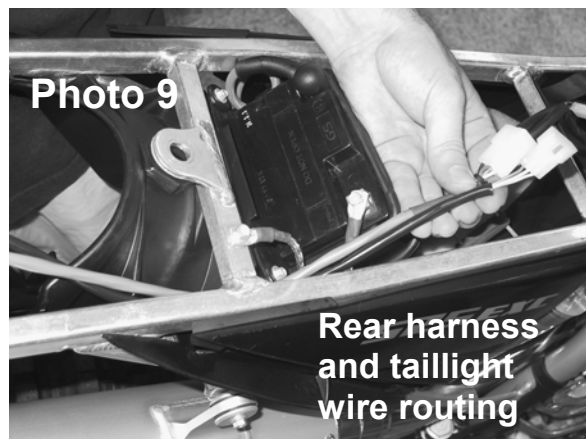


- Attach one of the two wires (doesn't matter which) from the left turn signal to the white wire from the gray cable.
- Attach the two remaining wires from the turn signals to the black double-female connector from the gray cable.

Once the connections are made, drill several small holes and zip-tie the harness into place along the same slot as the stock taillight wires as shown in Photo 7. **EXC** - You may now reinstall the taillight onto the fender and reinstall the fender onto the bike.

**MXC** – Since the MXC fender does not have the molded bosses to accept EXC style mounting screws, you must drill two 1/4" holes through the taillight and fender plastic and use the provided countersunk hardware to mount the taillight as shown in Photo 8. Route the wires to the front of the airbox as shown in Photo 9.

12. **Mid Harness Installation:** Locate the remaining gray cable that came in the dual-sport kit. This will be used to mate the taillight, brakeswitch, and rear turn signal wiring to the rest of the lighting system. One end of this harness will have a 6-pin plastic connector with a short extension that terminates with a 2-pin connector. Feed this end through the opening directly above the shock reservoir and out the right side of the bike next to the carburetor as shown in Photo 10. Next, feed the 2 plugs over the back side of the carb to left side of the bike. Then, following the stock wiring harness, route the plugs to the front of the bike along the left side of the frame. The 6-pin plug should terminate at the location shown in Photo 11. We will attach these plugs in a later step.



**13. Front Turn-Signal**

**Installation:** Mount the front turn-signal mounting bracket to the upper triple-clamp as shown in Photo 12. Mount the front turn-signals to this bracket.

**EXC's** use the existing bolts to mount this

bracket. **MXC's** use the two 6x12mm bolts found in the parts bag to mount this bracket.

**14. Lens, Flasher, Horn, and Relay Installation ('04 EXC Only):**

Replace the stock plastic 35W headlight lens with the provided 55/60W glass lens assembly. Mount the flasher, horn and relay to the stock headlight as shown in Photo 13.

**15. Switch Panel & Front Wiring**

**Installation:** Install the turn signal switch on the left handlebar next to the grip as shown in Photo 14. The switch has a single screw that pinches it together on one side. Two tabs secure the switch halves on the other side. Remove the screw to separate the halves so that it can be installed on the handlebar. When installing the switch to the handlebar, make sure the tabs are seated in their locating holes and then tighten the pinch screw. **DO NOT OVER-TIGHTEN THIS SCREW!** Too much force can strip the body of the switch. Move the clutch

perch to the right on the handlebar until the red adjuster knob cannot contact the body of the switch assembly when the clutch is pulled. Run the wires along the underside of the handlebar and down over front of the triple-clamp.

**16. High-Beam Indicator Installation:**

Attach the high-beam indicator bracket to the stock headlight switch bracket as shown in Photo 15.



Photo 12

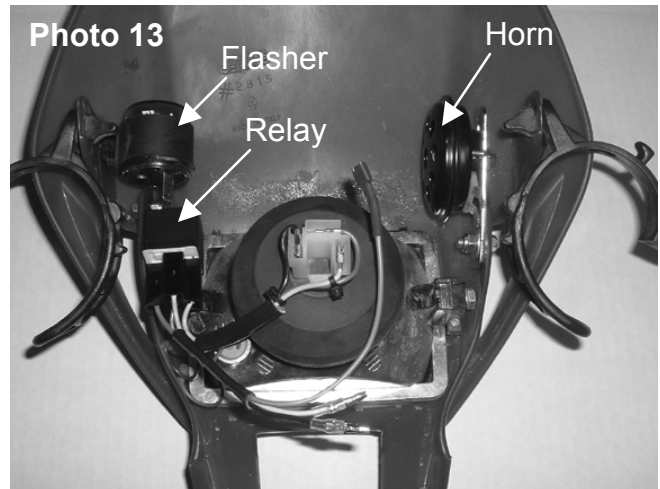


Photo 13

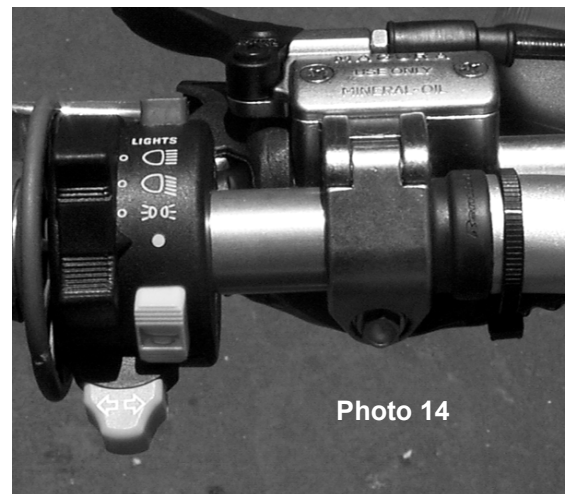


Photo 14



Photo 15

**17. Kill Wire Extension Installation:** Locate the black/white and green two-wire extension in the dual-sport kit parts bag. It has a ring terminal and female connector on one end and two females on the other. Secure the ring-terminal to the ground bolt under the fuel tank (same bolt the stock kill button was removed from in step 3.) Attach the female connector to the black/yellow wire from the CDI module (wire the kill button unplugged from in step 3.) Route the extension to the front of the bike along the left side. We will plug in the remaining connectors in the next step.

**18. Front Wiring Connections:** You will now make all the necessary wiring connections at the front of the bike. Reinstall the headlight once these connections are made.

*If you are colorblind or even think you might be a little color blind, now is the time to get someone to assist you. Successful installation of the kit requires good color recognition. You want to go riding this weekend, don't you?*

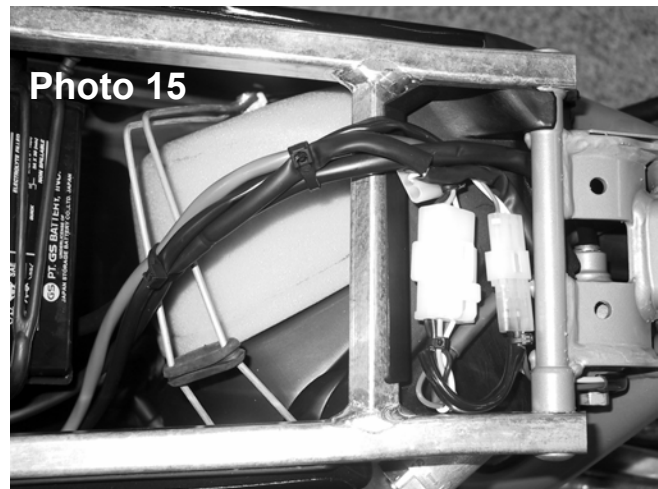
- Attach the 6-pin connector from the front wiring harness to its corresponding mate from the mid-harness you routed in step 12. Be sure to leave enough slack in this connection so the steering can turn freely from side to side without yanking on the wiring.
- Attach the black/white and green/yellow wire pair from the front wiring harness to the black/white and green wires from the kill-wire extension you installed in step 17.
- Plug the green and black wire pair from the front wiring harness into the two wires from the right turn signal. Plug the brown and black wire pair from the front wiring harness into the two wires from the left turn signal.
- Plug the gray and purple wire pair into the two horn terminals. Polarity is unimportant.
- Locate the red and orange wire pair. Plug the red wire into the terminal marked "P" on the flasher. Plug the orange wire into the terminal marked "L" on the flasher.
- Plug the yellow and black wire pair (both females) from the front harness into the yellow and black male wires from the relay.
- **EXC Only** - Unplug the plastic terminal with the two white wires from the stock headlight on/off switch (leave the yellow wire attached to the switch). Attach the blue wire from the relay to the switch in its place.
- **MXC Only** – Plug the blue wire from the relay into the stock yellow wire (plastic connector) that you routed to the front of the bike from under the tank in step 5. The remaining terminals from the stock wiring harness will be left unplugged.
- Attach the black and yellow wire pair (male and female) to the two wires from the high-beam indicator.

**19. Mid-Harness Connections:** You will now make all the necessary wiring connections under the fuel tank and seat.

- Under the fuel tank, locate the unused white 2-wire connector from the stock wiring harness (see Photo 14.) It may be bundled up in the stock wiring. Free this connector and attach it to the corresponding 2-wire connector from the Baja Designs mid-harness (short extension from the 6-pin connector.)



- At the front of the airbox, attach the 3-wire connector from the Baja Designs mid-harness to the corresponding 3-wire connector from the taillight. See Photo 15. The taillight connector from the stock wiring harness will no longer be used and will remain unplugged for this installation.
- At the same location on the airbox, attach the 4-wire connector from the Baja Designs mid-harness to its corresponding mate from the Baja Designs rear-harness. See Photo 15.
- Route the yellow and red wire pair from the mid-harness down to the brakeswitch along the main frame tube. Attach these two wires to the two wires from the brakeswitch. Polarity is unimportant. Carefully zip-tie these wires so they cannot burn on the exhaust.



The wiring installation is now completed!  
Proceed to the next section to test your work.

The switch panel in this kit controls all the lighting functions in one compact package. Using the lighting selector, push the switch to the second position. The rear taillight should come on. Test the brake-light. Test the turn signals. Honk the horn (unless its after 11 PM!).

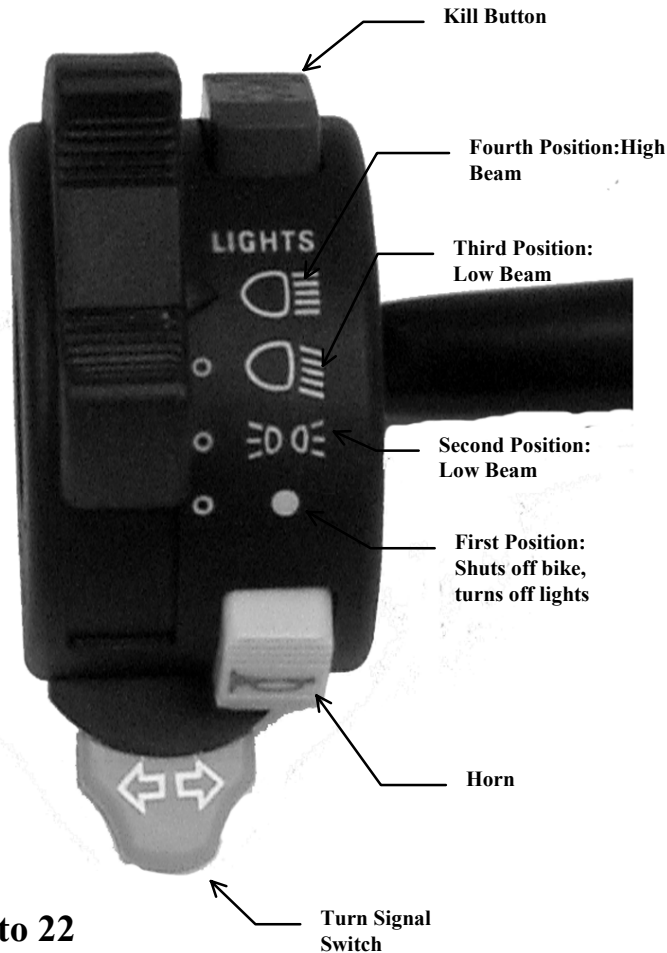


Photo 22

Because the headlight is powered directly off the coil, (not backed up by the battery) it will not turn on until the engine is running. The low-beam will be lit in both the second and third switch positions when the engine is running. **EXC** - The stock headlight switch must be in the "on" position for the headlight to function. **Note: The switch must now be in one of the upper three positions for the bike to start.** Click the main switch into the "off" position if using the button to kill the engine. If you don't, the taillight will remain lit and discharge the battery.

If every thing is working properly congratulate yourself on a job well done. Proceed to the "wrapping it up" section. If not, don't worry, it's not rocket science and we should be able to figure it out. All the components were checked for operation prior to being shipped to you so something is probably not connected correctly. See the trouble-shooting list in the next section of this manual.

**Wrapping it Up:** It is important that all the wires be properly routed and secured. Double-check the photos and sketches with regards to wire routing. Make sure the wires do not pass over any sharp edges, are pulled overly tight, or can be crushed by the seat, tank, fender, etc. Use all the zip ties provided to securely fasten the wires. Any unwanted movement or chafing means early failure when



off the road. Make sure all the silicone rubber connector boots and the connectors are pushed firmly together and no bare metal is exposed.

## TROUBLESHOOTING

### Nothing happens when you turn the power switch on:

- Fuse is blown. Check for bare wire or terminal shorting against the frame or another wire.
- 6-pin connector not properly connected.
- 2-wire connector under fuel tank is not properly attached to its mate from the Baja Designs wiring harness.
- Battery is dead. Measure voltage with voltmeter, or connect a 12-volt light across it. A fully charged battery should measure around 13.2 volts.

### The turn signals won't come on, or won't flash:

- The wires on the flasher are connected backward. The red wire goes to the terminal labeled "P", orange goes to "L".
- Check turn signal wire connections.
- Make sure you have connected the correct wires to the turn signals. Check instructions.

### Headlight won't come on:

- The stock headlight switch must be in the "on" position *and* the engine must be running for the headlight to function.
- The blue wire from the relay is not properly connected to the stock headlight switch.
- The H4 headlight connector from the relay is not properly attached to the three prongs from the back of the bulb.

**If you still need assistance, call Baja Designs at (760)560-2252.**

**Maintenance:** Occasionally examine the wires in your lighting system to make sure they are not chaffing or binding so that they don't cause you a problem when you're out on the trail or on the road. A well-routed, properly secured wiring system is key to getting long life and trouble free performance from your conversion kit. The light bulbs take a beating on a dirt bike, especially the rear taillight's. The continuous vibration and impact can cause the bulb contact to prematurely oxidize, causing the bulb to fail. Occasionally remove the bulbs (taillight and turnsignals) and scrape the soft contact at the base of the bulb and clean its mating contact in the lamp assembly.

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